

NCERT *Solutions* MATHS

Chapter 4 : Simple Equations

Class
7



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Chapter 4

Simple Equations

Exercise 4.1

Question 1:

Complete the last column of the table.

S. No.	Equation	Value	Say, whether the equation is satisfied. (Yes/No)
(i)	$x + 3 = 0$	$x = 3$	–
(ii)	$x + 3 = 0$	$x = 0$	–
(iii)	$x + 3 = 0$	$x = -3$	–
(iv)	$x - 7 = 1$	$x = 7$	–
(v)	$x - 7 = 1$	$x = 8$	–
(vi)	$5x = 25$	$x = 0$	–
(vii)	$5x = 25$	$x = 5$	–
(viii)	$5x = 25$	$x = -5$	–
(ix)	$\frac{m}{3} = 2$	$m = -6$	–
(x)	$\frac{m}{3} = 2$	$m = 0$	–
(xi)	$\frac{m}{3} = 2$	$m = 6$	–

Answer:

(i) $x + 3 = 0$

L.H.S. = $x + 3$

By putting $x = 3$,

L.H.S. = $3 + 3 = 6 \neq$ R.H.S.

\therefore No, the equation is not satisfied.

(ii) $x + 3 = 0$

L.H.S. = $x + 3$

By putting $x = 0$,

L.H.S. = $0 + 3 = 3 \neq$ R.H.S.

\therefore No, the equation is not satisfied.

(iii) $x + 3 = 0$

L.H.S. = $x + 3$

By putting $x = -3$,

L.H.S. = $-3 + 3 = 0 = \text{R.H.S.}$

\therefore Yes, the equation is satisfied.

(iv) $x - 7 = 1$

L.H.S. = $x - 7$

By putting $x = 7$,

L.H.S. = $7 - 7 = 0 \neq \text{R.H.S.}$

\therefore No, the equation is not satisfied.

(v) $x - 7 = 1$

L.H.S. = $x - 7$

By putting $x = 8$,

L.H.S. = $8 - 7 = 1 = \text{R.H.S.}$

\therefore Yes, the equation is satisfied.

(vi) $5x = 25$

L.H.S. = $5x$

By putting $x = 0$,

L.H.S. = $5 \times 0 = 0 \neq \text{R.H.S.}$

\therefore No, the equation is not satisfied.

(vii) $5x = 25$

L.H.S. = $5x$

By putting $x = 5$,

L.H.S. = $5 \times 5 = 25 = \text{R.H.S.}$

\therefore Yes, the equation is satisfied.

(viii) $5x = 25$

L.H.S. = $5x$

By putting $x = -5$,

L.H.S. = $5 \times (-5) = -25 \neq \text{R.H.S.}$

\therefore No, the equation is not satisfied.

(ix) $\frac{m}{3} = 2$

L.H.S. = $\frac{m}{3}$

By putting $m = -6$,

L. H. S. = $\frac{-6}{3} = -2 \neq \text{R.H.S.}$

\therefore No, the equation is not satisfied.

(x) $\frac{m}{3} = 2$

L.H.S. = $\frac{m}{3}$

By putting $m = 0$,

L.H.S. = $\frac{0}{3} = 0 \neq \text{R.H.S.}$

\therefore No, the equation is not satisfied.

(xi) $\frac{m}{3} = 2$

L.H.S. = $\frac{m}{3}$

By putting $m = 6$,

L.H.S. = $\frac{6}{3} = 2 = \text{R.H.S.}$

∴ Yes, the equation is satisfied.

Question 2:

Check whether the value given in the brackets is a solution to the given equation or not:

(a) $n + 5 = 19$ ($n = 1$) (b) $7n + 5 = 19$ ($n = -2$)

(c) $7n + 5 = 19$ ($n = 2$) (d) $4p - 3 = 13$ ($p = 1$)

(e) $4p - 3 = 13$ ($p = -4$) (f) $4p - 3 = 13$ ($p = 0$)

Answer:

(a) $n + 5 = 19$ ($n = 1$)

Putting $n = 1$ in L.H.S.,

$$n + 5 = 1 + 5 = 6 \neq 19$$

As L.H.S. \neq R.H.S.,

Therefore, $n = 1$ is not a solution of the given equation, $n + 5 = 19$.

(b) $7n + 5 = 19$ ($n = -2$)

Putting $n = -2$ in L.H.S.,

$$7n + 5 = 7 \times (-2) + 5 = -14 + 5 = -9 \neq 19$$

As L.H.S. \neq R.H.S.,

Therefore, $n = -2$ is not a solution of the given equation, $7n + 5 = 19$.

(c) $7n + 5 = 19$ ($n = 2$)

Putting $n = 2$ in L.H.S.,

$$7n + 5 = 7 \times (2) + 5 = 14 + 5 = 19 = \text{R.H.S.}$$

As L.H.S. = R.H.S.,

Therefore, $n = 2$ is a solution of the given equation, $7n + 5 = 19$.

(d) $4p - 3 = 13$ ($p = 1$)

Putting $p = 1$ in L.H.S.,

$$4p - 3 = (4 \times 1) - 3 = 1 \neq 13$$

As L.H.S \neq R.H.S.,

Therefore, $p = 1$ is not a solution of the given equation, $4p - 3 = 13$.

(e) $4p - 3 = 13$ ($p = -4$)

Putting $p = -4$ in L.H.S.,

$$4p - 3 = 4 \times (-4) - 3 = -16 - 3 = -19 \neq 13$$

As L.H.S. \neq R.H.S.,

Therefore, $p = -4$ is not a solution of the given equation, $4p - 3 = 13$.

(f) $4p - 3 = 13$ ($p = 0$)

Putting $p = 0$ in L.H.S.,

$$4p - 3 = (4 \times 0) - 3 = -3 \neq 13$$

As L.H.S. \neq R.H.S.,

Therefore, $p = 0$ is not a solution of the given equation, $4p - 3 = 13$.

Question 3:

Solve the following equations by trial and error method:

(i) $5p + 2 = 17$ (ii) $3m - 14 = 4$

Answer:

(i) $5p + 2 = 17$

Putting $p = 1$ in L.H.S.,

$$(5 \times 1) + 2 = 7 \neq \text{R.H.S.}$$

Putting $p = 2$ in L.H.S.,

$$(5 \times 2) + 2 = 10 + 2 = 12 \neq \text{R.H.S.}$$

Putting $p = 3$ in L.H.S.,

$$(5 \times 3) + 2 = 17 = \text{R.H.S.}$$

Hence, $p = 3$ is a solution of the given equation.

(ii) $3m - 14 = 4$

Putting $m = 4$,

$$(3 \times 4) - 14 = -2 \neq \text{R.H.S.}$$

Putting $m = 5$,

$$(3 \times 5) - 14 = 1 \neq \text{R.H.S.}$$

Putting $m = 6$,

$$(3 \times 6) - 14 = 18 - 14 = 4 = \text{R.H.S.}$$

Hence, $m = 6$ is a solution of the given equation.

Question 4:

Write equations for the following statements:

- (i) The sum of numbers x and 4 is 9.
- (ii) 2 subtracted from y is 8.
- (iii) Ten times a is 70.
- (iv) The number b divided by 5 gives 6.
- (v) Three-fourth of t is 15.
- (vi) Seven times m plus 7 gets you 77.
- (vii) One-fourth of a number x minus 4 gives 4.
- (viii) If you take away 6 from 6 times y , you get 60.
- (ix) If you add 3 to one-third of z , you get 30.

Answer:

(i) $x + 4 = 9$

(ii) $y - 2 = 8$

(iii) $10a = 70$

(iv) $\frac{b}{5} = 6$

(v) $\frac{3}{4}t = 15$

(vi) Seven times of m is $7m$.

$$7m + 7 = 77$$

(vii) One-fourth of a number x is $\frac{x}{4}$.

$$\frac{x}{4} - 4 = 4$$

(viii) Six times of y is $6y$.

$$6y - 6 = 60$$

(ix) One-third of z is $\frac{z}{3}$.

$$\frac{z}{3} + 3 = 30$$

Question 5:

Write the following equations in statement forms:

(i) $p + 4 = 15$ (ii) $m - 7 = 3$

(iii) $2m = 7$ (iv) $\frac{m}{5} = 3$

(v) $\frac{3m}{5} = 6$ (vi) $3p + 4 = 25$

(vii) $4p - 2 = 18$ (viii) $\frac{p}{2} + 2 = 8$

Answer:

(i) The sum of p and 4 is 15.

(ii) 7 subtracted from m is 3.

(iii) Twice of a number m is 7.

(iv) One-fifth of m is 3.

(v) Three-fifth of m is 6.

(vi) Three times of a number p , when added to 4, gives 25.

(vii) When 2 is subtracted from four times of a number p , it gives 18.

(viii) When 2 is added to half of a number p , it gives 8.

Question 6:

Set up an equation in the following cases:

(i) Irfan says that he has 7 marbles more than five times the marbles Parmit has. Irfan has 37 marbles. (Take m to be the number of Parmit's marbles.)

(ii) Laxmi's father is 49 years old. He is 4 years older than three times Laxmi's age. (Take Laxmi's age to be y years.)

(iii) The teacher tells the class that the highest marks obtained by a student in her class is twice the lowest marks plus 7. The highest score is 87. (Take the lowest score to be l .)

(iv) In an isosceles triangle, the vertex angle is twice either base angle. (Let the base angle be b in degrees. Remember that the sum of angles of a triangle is 180 degrees.)

Answer:

(i) Let Parmit has m marbles.

$5 \times \text{Number of marbles Parmit has} + 7 = \text{Number of marbles Irfan has}$

$$5 \times m + 7 = 37$$

$$5m + 7 = 37$$

(ii) Let Laxmi be y years old.

$3 \times \text{Laxmi's age} + 4 = \text{Laxmi's father's age}$

$$3 \times y + 4 = 49$$

$$3y + 4 = 49$$

(iii) Let the lowest marks be l .

$2 \times \text{Lowest marks} + 7 = \text{Highest marks}$

$$2 \times l + 7 = 87$$

$$2l + 7 = 87$$

(iv) An isosceles triangle has two of its angles of equal measure.

Let base angle be b .

Vertex angle = $2 \times$ Base angle = $2b$

Sum of all interior angles of a $\Delta = 180^\circ$

$$b + b + 2b = 180^\circ$$

$$4b = 180^\circ$$

Exercise 4.2

Question 1:

Give first the step you will use to separate the variable and then solve the equation:

(a) $x + 1 = 0$ (b) $x + 1 = 0$ (c) $x - 1 = 5$

(d) $x + 6 = 2$ (e) $y - 4 = -7$ (f) $y - 4 = 4$

(g) $y + 4 = 4$ (h) $y + 4 = -4$

Answer:

(a) $x - 1 = 0$

Adding 1 to both sides of the given equation, we obtain

$$x - 1 + 1 = 0 + 1$$

$$x = 1$$

(b) $x + 1 = 0$

Subtracting 1 from both sides of the given equation, we obtain

$$x + 1 - 1 = 0 - 1$$

$$x = -1$$

(c) $x - 1 = 5$

Adding 1 to both sides of the given equation, we obtain

$$x - 1 + 1 = 5 + 1$$

$$x = 6$$

(d) $x + 6 = 2$

Subtracting 6 from both sides of the given equation, we obtain

$$x + 6 - 6 = 2 - 6$$

$$x = -4$$

$$(e) y - 4 = -7$$

Adding 4 to both sides of the given equation, we obtain

$$y - 4 + 4 = -7 + 4$$

$$y = -3$$

$$(f) y - 4 = 4$$

Adding 4 to both sides of the given equation, we obtain

$$y - 4 + 4 = 4 + 4$$

$$y = 8$$

$$(g) y + 4 = 4$$

Subtracting 4 from both sides of the given equation, we obtain

$$y + 4 - 4 = 4 - 4$$

$$y = 0$$

$$(h) y + 4 = -4$$

Subtracting 4 from both sides of the given equation, we obtain

$$y + 4 - 4 = -4 - 4$$

$$y = -8$$

Question 2:

Give first the step you will use to separate the variable and then solve the equation:

$$(a) 3l = 42 \quad (b) \frac{b}{2} = 6 \quad (c) \frac{p}{7} = 4$$

$$(d) 4x = 25 \quad (e) 8y = 36 \quad (f) \frac{z}{3} = \frac{5}{4}$$

$$(g) \frac{a}{5} = \frac{7}{15} \quad (h) 20t = -10$$

Answer:

$$(a) 3l = 42$$

Dividing both sides of the given equation by 3, we obtain

$$\frac{3l}{3} = \frac{42}{3}$$

$$l = 14$$

$$(b) \frac{b}{2} = 6$$

Multiplying both sides of the given equation by 2, we obtain

$$\frac{b \times 2}{2} = 6 \times 2$$

$$b = 12$$

$$(c) \frac{p}{7} = 4$$

Multiplying both sides of the given equation by 7, we obtain

$$\frac{p \times 7}{7} = 4 \times 7$$

$$p = 28$$

$$(d) 4x = 25$$

Dividing both sides of the given equation by 4, we obtain

$$\frac{4x}{4} = \frac{25}{4}$$

$$x = \frac{25}{4}$$

$$(e) 8y = 36$$

Dividing both sides of the given equation by 8, we obtain

$$\frac{8y}{8} = \frac{36}{8}$$

$$y = \frac{9}{2}$$

$$(f) \frac{z}{3} = \frac{5}{4}$$

Multiplying both sides of the given equation by 3, we obtain

$$\frac{z \times 3}{3} = \frac{5 \times 3}{4}$$

$$z = \frac{15}{4}$$

$$(g) \frac{a}{5} = \frac{7}{15}$$

Multiplying both sides of the given equation by 5, we obtain $\frac{a \times 5}{5} = \frac{7 \times 5}{15}$

$$a = \frac{7}{3}$$

$$(h) 20t = -10$$

Dividing both sides of the given equation by 20, we obtain

$$\frac{20t}{20} = \frac{-10}{20}$$

$$t = \frac{-1}{2}$$

Question 3:

Give the steps you will use to separate the variable and then solve the equation:

$$(a) 3n - 2 = 46 \quad (b) 5m + 7 = 17 \quad (c) \frac{20p}{3} = 40$$

$$(d) \frac{3p}{10} = 6$$

Answer:

(a) $3n - 2 = 46$

Adding 2 to both sides of the given equation, we obtain

$$3n - 2 + 2 = 46 + 2$$

$$3n = 48$$

Dividing both sides of the given equation by 3, we obtain

$$\frac{3n}{3} = \frac{48}{3}$$

$$n = 16$$

(b) $5m + 7 = 17$

Subtracting 7 from both sides of the given equation, we obtain

$$5m + 7 - 7 = 17 - 7$$

$$5m = 10$$

Dividing both sides of the given equation by 5, we obtain

$$\frac{5m}{5} = \frac{10}{5}$$

$$m = 2$$

(c) $\frac{20p}{3} = 40$

Multiplying both sides of the given equation by 3, we obtain

$$\frac{20p \times 3}{3} = 40 \times 3$$

$$20p = 120$$

Dividing both sides of the given equation by 20, we obtain

$$\frac{20p}{20} = \frac{120}{20}$$

$$p = 6$$

(d) $\frac{3p}{10} = 6$

Multiplying both sides of the given equation by 10, we obtain

$$\frac{3p \times 10}{10} = 6 \times 10$$
$$3p = 60$$

Dividing both sides of the given equation by 3, we obtain

$$\frac{3p}{3} = \frac{60}{3}$$

$$p = 20$$

Question 4:

Solve the following equations:

(a) $10p = 100$ (b) $10p + 10 = 100$ (c) $\frac{p}{4} = 5$

(d) $\frac{-p}{3} = 5$ (e) $\frac{3p}{4} = 6$ (f) $3s = -9$

(g) $3s + 12 = 0$ (h) $3s = 0$ (i) $2q = 6$

(j) $2q - 6 = 0$ (k) $2q + 6 = 0$ (l) $2q + 6 = 12$

Answer:

(a) $10p = 100$

$$\frac{10p}{10} = \frac{100}{10}$$
$$p = 10$$

(b) $10p + 10 = 100$

$$10p + 10 - 10 = 100 - 10$$

$$10p = 90$$

$$\frac{10p}{10} = \frac{90}{10}$$
$$p = 9$$

$$(c) \frac{p}{4} = 5$$

$$\frac{p \times 4}{4} = 5 \times 4$$
$$p = 20$$

$$(d) \frac{-p}{3} = 5$$

$$\frac{-p \times (-3)}{3} = 5 \times (-3)$$
$$p = -15$$

(e)

$$\frac{3p}{4} = 6$$
$$\frac{3p \times 4}{4} = 6 \times 4$$
$$3p = 24$$
$$\frac{3p}{3} = \frac{24}{3}$$
$$p = 8$$

$$(f) 3s = -9$$

$$\frac{3s}{3} = \frac{-9}{3}$$
$$s = -3$$

$$(g) 3s + 12 = 0$$

$$3s + 12 - 12 = 0 - 12$$

$$3s = -12$$

$$\frac{3s}{3} = \frac{-12}{3}$$
$$s = -4$$

$$(h) 3s = 0$$

$$\frac{3s}{3} = \frac{0}{3}$$

$$s = 0$$

(i) $2q = 6$

$$\frac{2q}{2} = \frac{6}{2}$$

$$q = 3$$

(j) $2q - 6 = 0$

$$2q - 6 + 6 = 0 + 6$$

$$2q = 6$$

$$\frac{2q}{2} = \frac{6}{2}$$

$$q = 3$$

(k) $2q + 6 = 0$

$$2q + 6 - 6 = 0 - 6$$

$$2q = -6$$

$$\frac{2q}{2} = \frac{-6}{2}$$

$$q = -3$$

(l) $2q + 6 = 12$

$$2q + 6 - 6 = 12 - 6$$

$$2q = 6$$

$$\frac{2q}{2} = \frac{6}{2}$$

$$q = 3$$

Exercise 4.3

Question 1:

Set up equations and solve them to find the unknown numbers in the following cases:

(a) Add 4 to eight times a number; you get 60.

(b) One-fifth of a number minus 4 gives 3.

(c) If I take three-fourths of a number and add 3 to it, I get 21.

(d) When I subtracted 11 from twice a number, the result was 15.

(e) Munna subtracts thrice the number of notebooks he has from 50, he finds the result to be 8.

(f) Ibenhal thinks of a number. If she adds 19 to it and divides the sum by 5, she will get 8.

(g) Anwar thinks of a number. If he takes away 7 from $\frac{5}{2}$ of the number, the result is 23.

Answer:

(a) Let the number be x .

8 times of this number = $8x$

$$8x + 4 = 60$$

$$8x = 60 - 4 \text{ (Transposing 4 to R.H.S.)}$$

$$8x = 56$$

Dividing both sides by 8,

$$\frac{8x}{8} = \frac{56}{8}$$
$$x = 7$$

(b) Let the number be x .

One-fifth of this number = $\frac{x}{5}$

$$\frac{x}{5} - 4 = 3$$

$$\frac{x}{5} = 3 + 4$$

(Transposing -4 to R.H.S.)

$$\frac{x}{5} = 7$$

Multiplying both sides by 5,

$$\frac{x \times 5}{5} = 7 \times 5$$

$$x = 35$$

(c) Let the number be x .

Three-fourth of this number = $\frac{3x}{4}$

$$\frac{3}{4}x + 3 = 21$$

$$\frac{3}{4}x = 18$$

(Transposing 3 to R.H.S.)

$$\frac{3x \times 4}{4} = 18 \times 4$$

Multiplying both sides by 4, $3x = 72$

Dividing both sides by 3,

$$\frac{3x}{3} = \frac{72}{3}$$

$$x = 24$$

(d) Let the number be x .

Twice of this number = $2x$

$$2x - 11 = 15$$

$$2x = 15 + 11 \text{ (Transposing } -11 \text{ to R.H.S.)}$$

$$2x = 26$$

Dividing both sides by 2,

$$\frac{2x}{2} = \frac{26}{2}$$

$$x = 13$$

(e) Let the number of books be x .

Thrice the number of books = $3x$

$$50 - 3x = 8$$

$$-3x = 8 - 50 \text{ (Transposing 50 to R.H.S.)}$$

$$-3x = -42$$

Dividing both sides by -3 ,

$$\frac{-3x}{-3} = \frac{-42}{-3}$$
$$x = 14$$

(f) Let the number be x .

$$\frac{x+19}{5} = 8$$

Multiplying both sides by 5 ,

$$\frac{(x+19) \times 5}{5} = 8 \times 5$$

$$x + 19 = 40$$

$$x = 40 - 19 \text{ (Transposing 19 to R.H.S.)}$$

$$x = 21$$

(g) Let the number be x .

$$\frac{5}{2} \text{ of this number} = \frac{5x}{2}$$

$$\frac{5x}{2} - 7 = 23$$

$$\frac{5x}{2} = 23 + 7 \text{ (Transposing } -7 \text{ to R.H.S.)}$$
$$\frac{5x}{2} = 30$$

Multiplying both sides by 2 ,

$$\frac{5x \times 2}{2} = 30 \times 2$$
$$5x = 60$$

Dividing both sides by 5 ,

$$\frac{5x}{5} = \frac{60}{5}$$

$$x = 12$$

Question 2:

Solve the following:

(a) The teacher tells the class that the highest marks obtained by a student in her class is twice the lowest marks plus 7. The highest score is 87. What is the lowest score?

(b) In an isosceles triangle, the base angles are equal. The vertex angle is 40° . What are the base angles of the triangle? (Remember, the sum of three angles of a triangle is 180°).

(c) Sachin scored twice as many runs as Rahul. Together, their runs fell two short of a double century. How many runs did each one score?

Answer:

(a) Let the lowest score be l .

$$2 \times \text{Lowest marks} + 7 = \text{Highest marks}$$

$$2l + 7 = 87$$

$$2l = 87 - 7 \text{ (Transposing 7 to R.H.S.)}$$

$$2l = 80$$

Dividing both sides by 2,

$$\frac{2l}{2} = \frac{80}{2}$$

$$l = 40$$

Therefore, the lowest score is 40.

(b) Let the base angles be equal to b .

The sum of all interior angles of a triangle is 180° .

$$b + b + 40^\circ = 180^\circ$$

$$2b + 40^\circ = 180^\circ$$

$$2b = 180^\circ - 40^\circ = 140^\circ \text{ (Transposing } 40^\circ \text{ to R.H.S.)}$$

Dividing both sides by 2,

$$\frac{2b}{2} = \frac{140^\circ}{2}$$

$$b = 70^\circ$$

Therefore, the base angles of the triangle are of 70° measure.

(c) Let Rahul's score be x .

Therefore, Sachin's score = $2x$

Rahul's score + Sachin's score = $200 - 2$

$$2x + x = 198$$

$$3x = 198$$

Dividing both sides by 3,

$$\frac{3x}{3} = \frac{198}{3}$$

$$x = 66$$

Rahul's score = 66

Sachin's score = $2 \times 66 = 132$

Question 3:

Solve the following:

(i) Irfan says that he has 7 marbles more than five times the marbles Parmit has. Irfan has 37 marbles. How many marbles does Parmit have?

(ii) Laxmi's father is 49 year old. He is 4 years older than three times Laxmi's age. What is Laxmi's age?

(iii) People of Sundargram planted trees in the village garden. Some of the trees were fruit trees. The number of non-fruit trees was two more than three times the number of fruit trees. What was the number of fruit trees planted if the number of non-fruit trees planted was 77?

Answer:

(i) Let Parmit's marbles equal x .

5 times the number of marbles Parmit has = $5x$

$$5x + 7 = 37$$

$$5x = 37 - 7 = 30 \text{ (Transposing 7 to R.H.S.)}$$

Dividing both sides by 5,

$$\frac{5x}{5} = \frac{30}{5}$$
$$x = 6$$

Therefore, Parmit has 6 marbles.

(ii) Let Laxmi's age be x years.

$$3 \times \text{Laxmi's age} + 4 = \text{Her father's age}$$

$$3x + 4 = 49$$

$$3x = 49 - 4 \text{ (Transposing 4 to R.H.S.)}$$

$$3x = 45$$

Dividing both sides by 3,

$$\frac{3x}{3} = \frac{45}{3}$$

$$x = 15$$

Therefore, Laxmi's age is 15 years.

(iii) Let the number of fruit trees be x .

$$3 \times \text{Number of fruit trees} + 2 = \text{Number of non-fruit trees}$$

$$3x + 2 = 77$$

$$3x = 77 - 2 \text{ (Transposing 2 to R.H.S.)}$$

$$3x = 75$$

Dividing both sides of the equation by 3,

$$\frac{3x}{3} = \frac{75}{3}$$

$$x = 25$$

Therefore, the number of fruit trees was 25.

Question 4:

Solve the following riddle:

I am a number,

Tell my identity!

Take me seven times over

And add a fifty!

To reach a triple century

You still need forty!

Answer:

Let the number be x .

$$(7x + 50) + 40 = 300$$

$$7x + 90 = 300$$

$$7x = 300 - 90 \text{ (Transposing 90 to R.H.S.)}$$

$$7x = 210$$

Dividing both sides by 7,

$$\frac{7x}{7} = \frac{210}{7}$$

$$x = 30$$

Therefore, the number is 30.

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We are thrilled to introduce the School of Educators WhatsApp Group, a platform designed exclusively for educators to enhance your teaching & Learning experience and learning outcomes. Here are some of the key benefits you can expect from joining our group:

BENEFITS OF SOE WHATSAPP GROUPS

- **Abundance of Content:** Members gain access to an extensive repository of educational materials tailored to their class level. This includes various formats such as PDFs, Word files, PowerPoint presentations, lesson plans, worksheets, practical tips, viva questions, reference books, smart content, curriculum details, syllabus, marking schemes, exam patterns, and blueprints. This rich assortment of resources enhances teaching and learning experiences.
- **Immediate Doubt Resolution:** The group facilitates quick clarification of doubts. Members can seek assistance by sending messages, and experts promptly respond to queries. This real-time interaction fosters a supportive learning environment where educators and students can exchange knowledge and address concerns effectively.
- **Access to Previous Years' Question Papers and Topper Answers:** The group provides access to previous years' question papers (PYQ) and exemplary answer scripts of toppers. This resource is invaluable for exam preparation, allowing individuals to familiarize themselves with the exam format, gain insights into scoring techniques, and enhance their performance in assessments.

- **Free and Unlimited Resources:** Members enjoy the benefit of accessing an array of educational resources without any cost restrictions. Whether its study materials, teaching aids, or assessment tools, the group offers an abundance of resources tailored to individual needs. This accessibility ensures that educators and students have ample support in their academic endeavors without financial constraints.
- **Instant Access to Educational Content:** SOE WhatsApp groups are a platform where teachers can access a wide range of educational content instantly. This includes study materials, notes, sample papers, reference materials, and relevant links shared by group members and moderators.
- **Timely Updates and Reminders:** SOE WhatsApp groups serve as a source of timely updates and reminders about important dates, exam schedules, syllabus changes, and academic events. Teachers can stay informed and well-prepared for upcoming assessments and activities.
- **Interactive Learning Environment:** Teachers can engage in discussions, ask questions, and seek clarifications within the group, creating an interactive learning environment. This fosters collaboration, peer learning, and knowledge sharing among group members, enhancing understanding and retention of concepts.
- **Access to Expert Guidance:** SOE WhatsApp groups are moderated by subject matter experts, teachers, or experienced educators can benefit from their guidance, expertise, and insights on various academic topics, exam strategies, and study techniques.

Join the School of Educators WhatsApp Group today and unlock a world of resources, support, and collaboration to take your teaching to new heights. To join, simply click on the group links provided below or send a message to +91-95208-77777 expressing your interest.

**Together, let's empower ourselves & Our Students and
inspire the next generation of learners.**

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To maximize the benefits of these WhatsApp groups, follow these guidelines:

1. Share your valuable resources with the group.
2. Help your fellow educators by answering their queries.
3. Watch and engage with shared videos in the group.
4. Distribute WhatsApp group resources among your students.
5. Encourage your colleagues to join these groups.

Additional notes:

1. Avoid posting messages between 9 PM and 7 AM.
2. After sharing resources with students, consider deleting outdated data if necessary.
3. It's a NO Nuisance groups, single nuisance and you will be removed.
 - No introductions.
 - No greetings or wish messages.
 - No personal chats or messages.
 - No spam. Or voice calls
 - Share and seek learning resources only.

Please only share and request learning resources. For assistance, contact the helpline via WhatsApp: +91-95208-77777.

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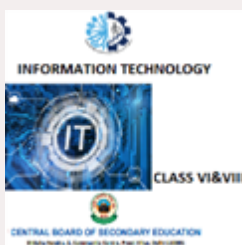
Design Thinking & Innovation



Financial Literacy



Handicrafts



Information Technology



Marketing/Commercial Application



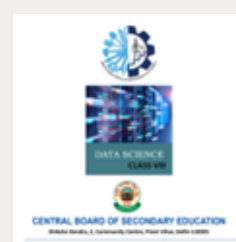
Mass Media - Being Media Literate



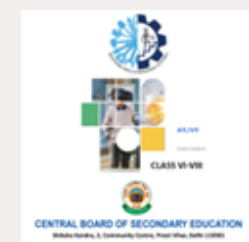
Travel & Tourism



Coding



Data Science (Class VIII only)



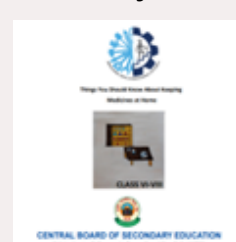
Augmented Reality / Virtual Reality



Digital Citizenship



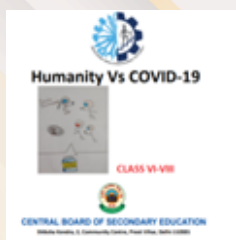
Life Cycle of Medicine & Vaccine



Things you should know about keeping Medicines at home



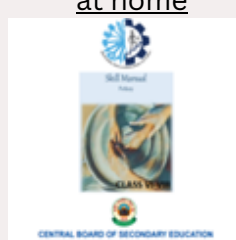
What to do when Doctor is not around



Humanity & Covid-19



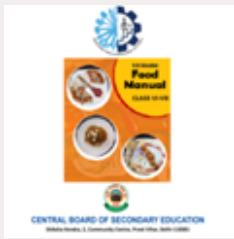
Blue Pottery



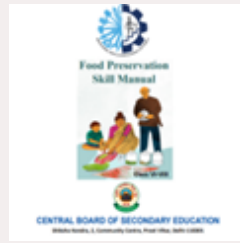
Pottery



Block Printing



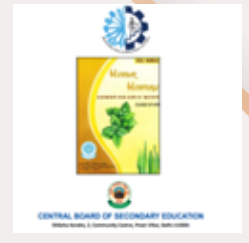
Food



Food Preservation



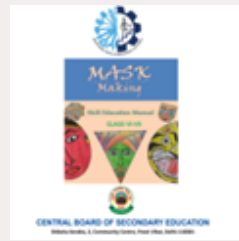
Baking



Herbal Heritage



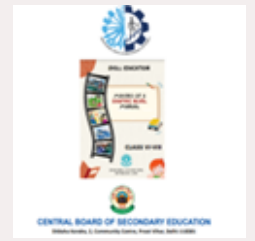
Khadi



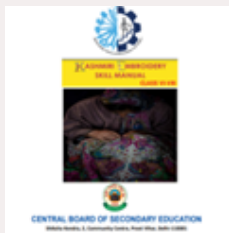
Mask Making



Mass Media



Making of a Graphic Novel



Kashmiri Embroidery



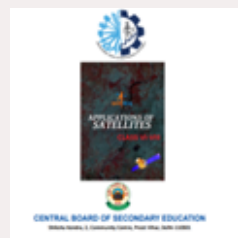
Embroidery



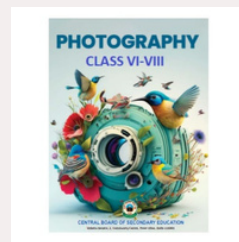
Rockets



Satellites



Application of Satellites

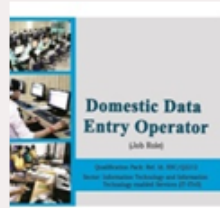


Photography

SKILL SUBJECTS AT SECONDARY LEVEL (CLASSES IX – X)



Retail



Information Technology



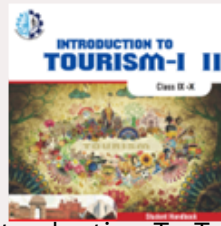
Security



Automotive



Introduction To Financial Markets



Introduction To Tourism



Beauty & Wellness



Agriculture



Food Production



Front Office Operations



Banking & Insurance



Marketing & Sales



Health Care



Apparel



Multi Media



Multi Skill Foundation Course



Artificial Intelligence



Physical Activity Trainer



Data Science



Electronics & Hardware (NEW)



Foundation Skills For Sciences (Pharmaceutical & Biotechnology)(NEW)

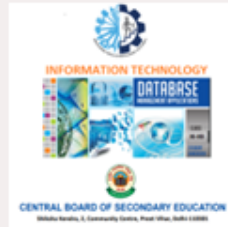


Design Thinking & Innovation (NEW)

SKILL SUBJECTS AT SR. SEC. LEVEL (CLASSES XI – XII)



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Information Technology



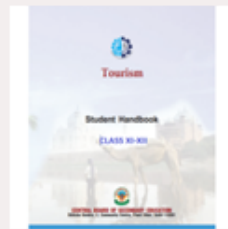
Web Application



Automotive



Financial Markets Management



Tourism



Beauty & Wellness



Agriculture



Food Production



Front Office Operations



Banking



Marketing



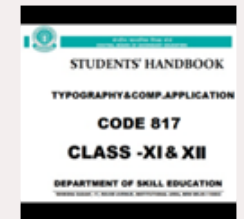
Health Care



Insurance



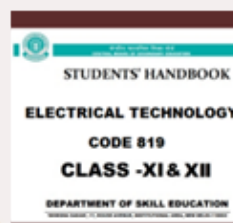
Horticulture



Typography & Comp.
Application



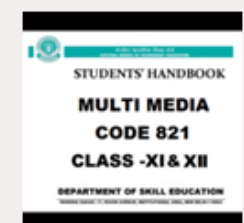
Geospatial Technology



Electrical Technology



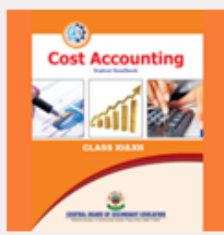
Electronic Technology



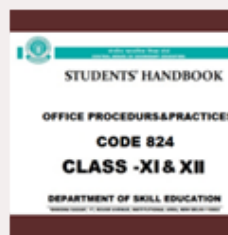
Multi-Media



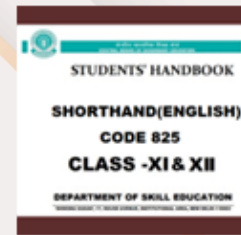
Taxation



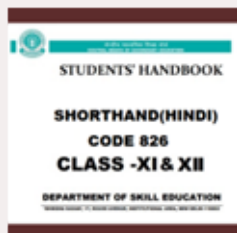
Cost Accounting



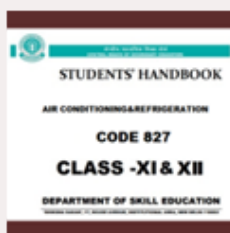
Office Procedures & Practices



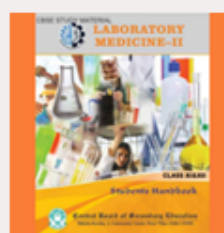
Shorthand (English)



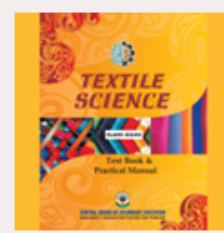
Shorthand (Hindi)



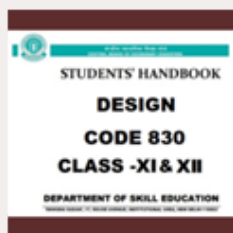
Air-Conditioning & Refrigeration



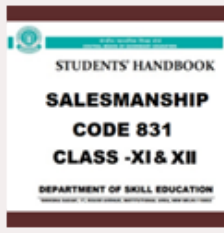
Medical Diagnostics



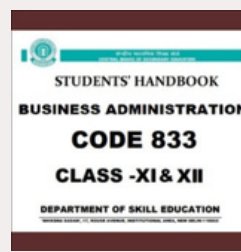
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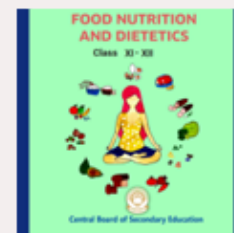
Design



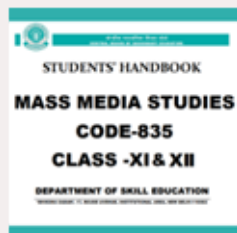
Salesmanship



Business Administration



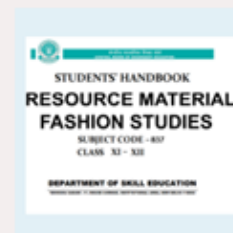
Food Nutrition & Dietetics



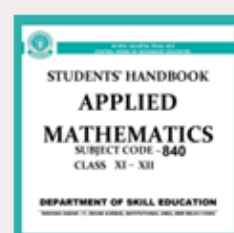
Mass Media Studies



Library & Information Science



Fashion Studies



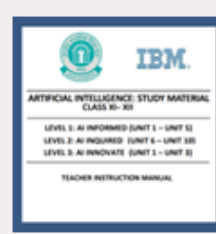
Applied Mathematics



Yoga



Early Childhood Care & Education



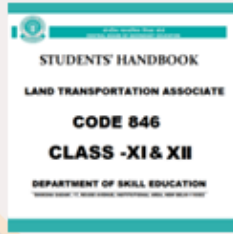
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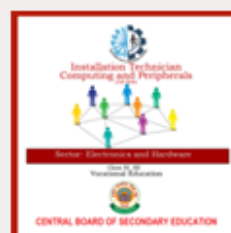
Data Science



Physical Activity Trainer(new)



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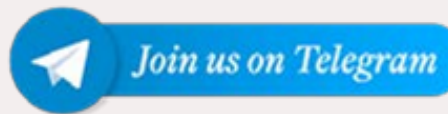
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Kindergarten



All classes



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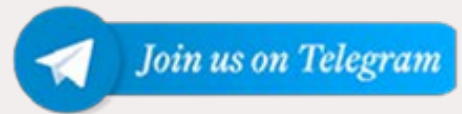
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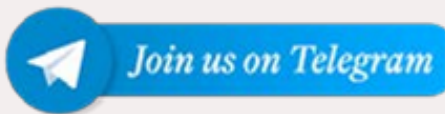
Class 3



Class 4



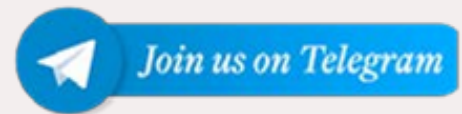
Class 5



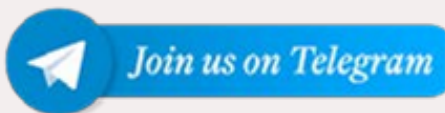
Class 6



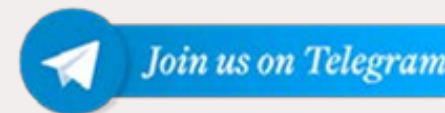
Class 7



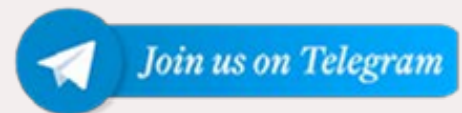
Class 8



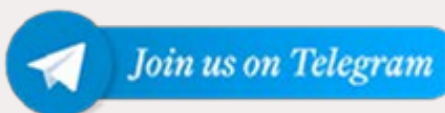
Class 9



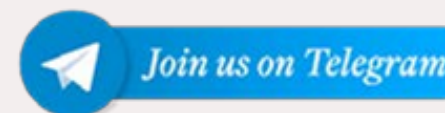
Class 10



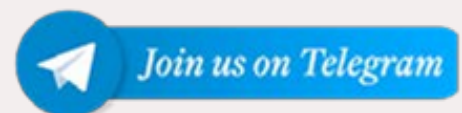
Class 11 (Sci)



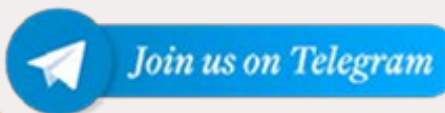
Class 11 (Com)



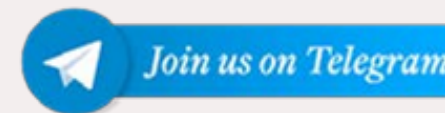
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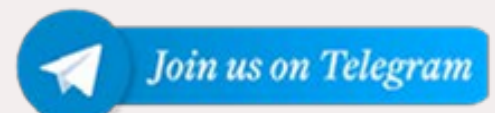
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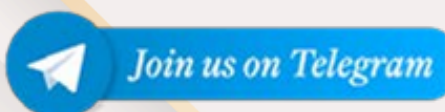
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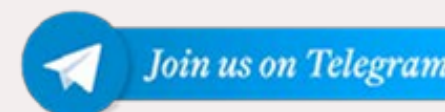
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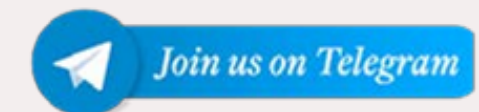
JEE/NEET



CUET



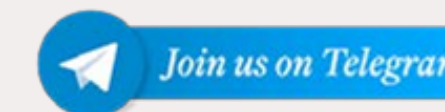
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